

Attorney Docket No. 10559-105001  
Serial No.: 09/458,370  
Amendment dated January 21, 2004  
Reply to Office Action dated October 22, 2003

REMARKS

Reconsideration and allowance of the above-referenced application are respectfully requested.

Initially, it is respectfully suggested that the interpretation of the Tanaka reference mixes the different Tanaka embodiments, and, in summary, does not teach or suggest the current system. The Tanaka reference teaches a number of different embodiments. In the embodiment of figure 11, there are two different one-dimensional DCT calculators, labelled as 4 and 6. The one-dimensional DCT calculator 4 always calculates information in the row direction. See, for example, column 11, lines 58-61. Conversely, the DCT calculator 6 always calculates information in the column direction. The switches 20 switch between row and column information. First, the one-dimensional DCT calculator, for example, number 4, may calculate the row information, and store into the memory. When the switch switches, the row information, that is the row-processed information in memory, is then processed by the column calculator 6. In this system, one DCT calculator is always operating in the row processing direction, while the other DCT calculator is always operating in the column processing direction.

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In another embodiment, described beginning at column 10, line 64, there is admittedly a switching circuit, which as stated, "switches the row and column addresses", see column 11, lines 17. However, all this does is change the direction of which of the two, DCT calculators calculates the data first. In this embodiment, it appears that the first set of data in the row direction direction, see column 11, line 10, are first designated, and that DCT calculator 4 writes these in the row direction as explained. Then, the order of the data is changed, and read out in the column direction and sent to the calculators 6 (see column 11, lines 20-22). The address at which the data is read out is admittedly changed, but nowhere is there any teaching or suggestion that both of the calculators are calculating data in the same direction at the same time.

In item 3, the analysis of Tanaka is correct. The data is written in the row direction and then read in the column direction. However, this is very different than the present system, in which both of two inverse DCT blocks operate in the same direction (of row direction and column direction). As explained at the top of page 8 of the specification, this may reduce the amount of RAM, and may increase throughput, since it does not require one DCT block to wait for the other DCT block. In contrast, certainly using Tanaka's system, one of the DCT

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blocks would have to wait for the other to finish before it could operate.

Claims 1-17, 19-21, 23-26 and 28 stand rejected under 35 USC 102 as allegedly being unpatentable over Tanaka. This rejection is respectfully traversed for reasons stated above. However, to the extent the rejection was based on vagueness about what constitutes a "direction" in claim 1, this claim has been amended to emphasize that both of the DCT devices operate in the same direction at the same time, and including the limitations generally of claims 2, 3, 6 and 7, and limiting the directions to row and column order. As discussed above, there is no teaching or suggestion in Tanaka that both of the calculators 4 and 6 operate in the same direction at the same time. In fact, it is contemplated by Tanaka that the two calculators 4 and 6 operate in different directions at the same time. Hence, it is respectfully suggested that these amendments to claim 1 further emphasize the patentable distinctions of claim 1, and that claim 1 should hence be allowable for these reasons.

Similar limitations have been added to claims 8, 15, 19, 23, 25. It is respectfully suggested that these amendments emphasize the patentable distinctions thus further obviating the

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rejection over Tanaka. It is respectfully suggested that this should obviate the rejections under Section 102.

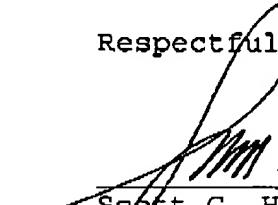
In addition, it is respectfully suggested that this system produces the advantages discussed above, making it far from obvious.

Claims 1, 15 and 23 stand objected to due to informalities which have been corrected herein.

In view of the above amendments and remarks, therefore, all of the claims should be in condition for allowance. A formal notice to that effect is respectfully solicited.

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Respectfully submitted,

  
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